TWO NEW SPECIES OF THE GENUS *THOMISUS* WALCKENAER (ARANEAE : THOMISIDAE) FROM COASTAL ANDHRA PRADESH[1]

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(With two text-figures)

Two new species of the genus *Thomisus* Walckenaer, *Thomisus godavariae* sp. nov. and *T. krishnae* sp. nov. from Srikakulam, Krishna, Guntur, Prakasam and Nellore districts of coastal Andhra Pradesh are described and illustrated.

Introduction

The genus *Thomisus* Walckenaer is represented in Indian fauna by 17 species, out of which two were described by Stoliczka (1869) and the other 15 by Tikader (1960 to 1980), Basu (1963), Sen (1963) and Sen and Basu (1963).

While examining the spider collections made by one of us (TSR) from coastal Andhra Pradesh, we came across two new species of *Thomisus,* which are described and illustrated here. At present the thomisid fauna comprises of six subfamilies, 37 genera and 167 species from India.

The type specimens will in due course be deposited in the National Collections of the Zoological Survey of India, Calcutta.

Thomisus godavariae sp. nov. (Fig. 1)

General: Cephalothorax and legs yellowish, abdomen chalk-white. Total length 8.60 mm. Carapace 3.60 mm long, 3.70 mm wide; abdomen 5.50 mm long, 5.40 mm wide.

Cephalothorax: High, oval, as long as wide. Both rows of eyes recurved, anterior medians light and rest dark in colour; lateral eyes on strong conical protuberance. Anterior median eyes smaller than the anterior lateral eyes. All posterior eyes equal in size. Ocular quad wider than long and wider behind than in front. Clypeus moderately subrectangular and granulated. Centre of the thorax pale in colour (Fig. 1 a). Sternum oblong, yellow, clothed with hairs. Labium and maxillae longer than wide, distal ends chalk-white in colour. Sternum, labium and maxillae as in Fig. 1 b. Chelicerae yellowish in colour and strong. Legs long and stout, I and II longer than III and IV. Metatarsi I and II with six pairs of stout ventral spines. Tibiae I and II with two pairs of ventral spines and two antero-lateral spines in the anterior half. Front view of I leg as in Fig. 1 h. Legs III and IV without any spines. Metatarsi of III and IV with distal end and tarsi with complete scopulae. Two tarsal claws present. Leg formula 1/2/4/3.

Abdomen: Chalk-white, pentagonal, projecting over the base of the cephalothorax in front, broadest just behind the middle. The broadest region is tuberculated laterally with a small dark brown spot on the top of the tubercle. Dorsum of abdomen with one anterior median and three pairs of sigillae. Lateral margins of dorsal surface of abdomen with small tubercle-like granules and muscular corrugations. Posterior end of abdomen with conspicuous muscular corrugations as in Fig. 1 a. Ventral side lighter in colour and provided with two rows of brown dots, six in each row inbetween the epigastric furrow and spinnerets. Ventrolateral margins with corrugations of muscles. Epigyne and internal genitalia as in Fig. 1 c, d.

Male: Similar to female but very small with a total length of 3.16 mm. Male palp as in Fig. 1 e, f, g.

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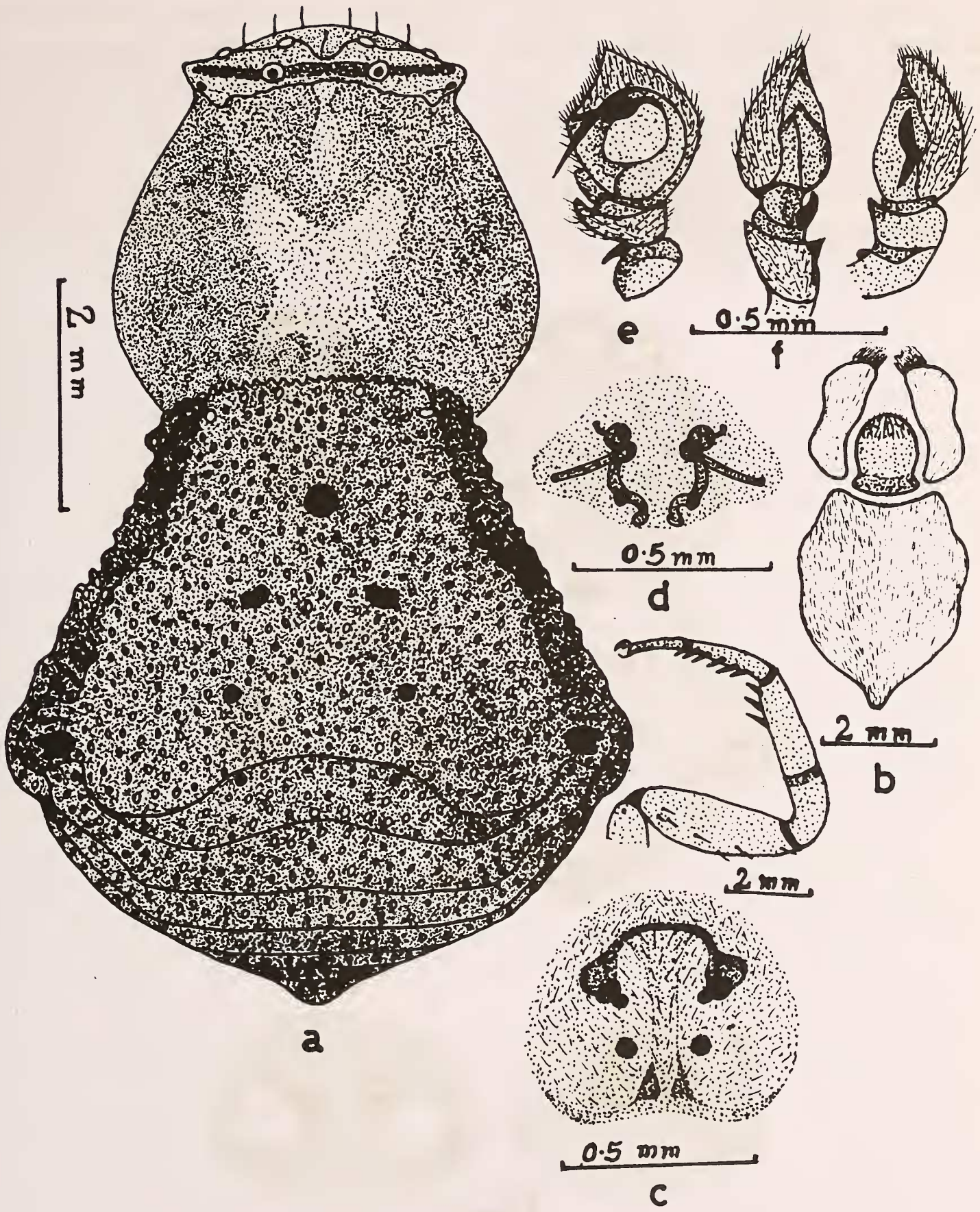

Fig. 1: *Thomisus godavariae* sp. nov.
(a) Dorsal view of female (legs omitted), (b) Sterum, labium and maxillae, (c) Epigyne, (d) Internal genitalia, (e) Right male palp – ventral view, (f) Right male palp –'outerview, (g) Right male palp – inner view, (h) I leg front view.

Holotype: One female, paratype 12 females, allotype one male in spirit.
Type-locality: Tenali, dist. Guntur, 24 Aug. 1985. Coll. T. S. Reddy.
Distribution: Budumur, dist. Srikakulam, 9 Oct. 1986; Avanigudda, dist. Krishna, 13 Feb. 1986; Tangutur, dist. Prakasam, 10 April 1986; Athmakur and Manubolu, 3 April 1986, Kota, 4 April 1986, Lakshmipuram, 9 Oct. 1986 and Nellore, dist. Nellore, 8 April 1986. Coll. T. S. Reddy.
Diagnosis: The species resembles *Thomisus beautifularis* Basu but is separated as follows. (i) Metatarsus I and II with six pairs of ventral spines but *T. beautifularis* has only five pairs of ventral spines. (ii) Abdomen with one anterior median and three pairs of sigillae but *T. beautifularis* has only three pairs of sigillae. (iii) Epigyne and internal genitalia are also structurally different.

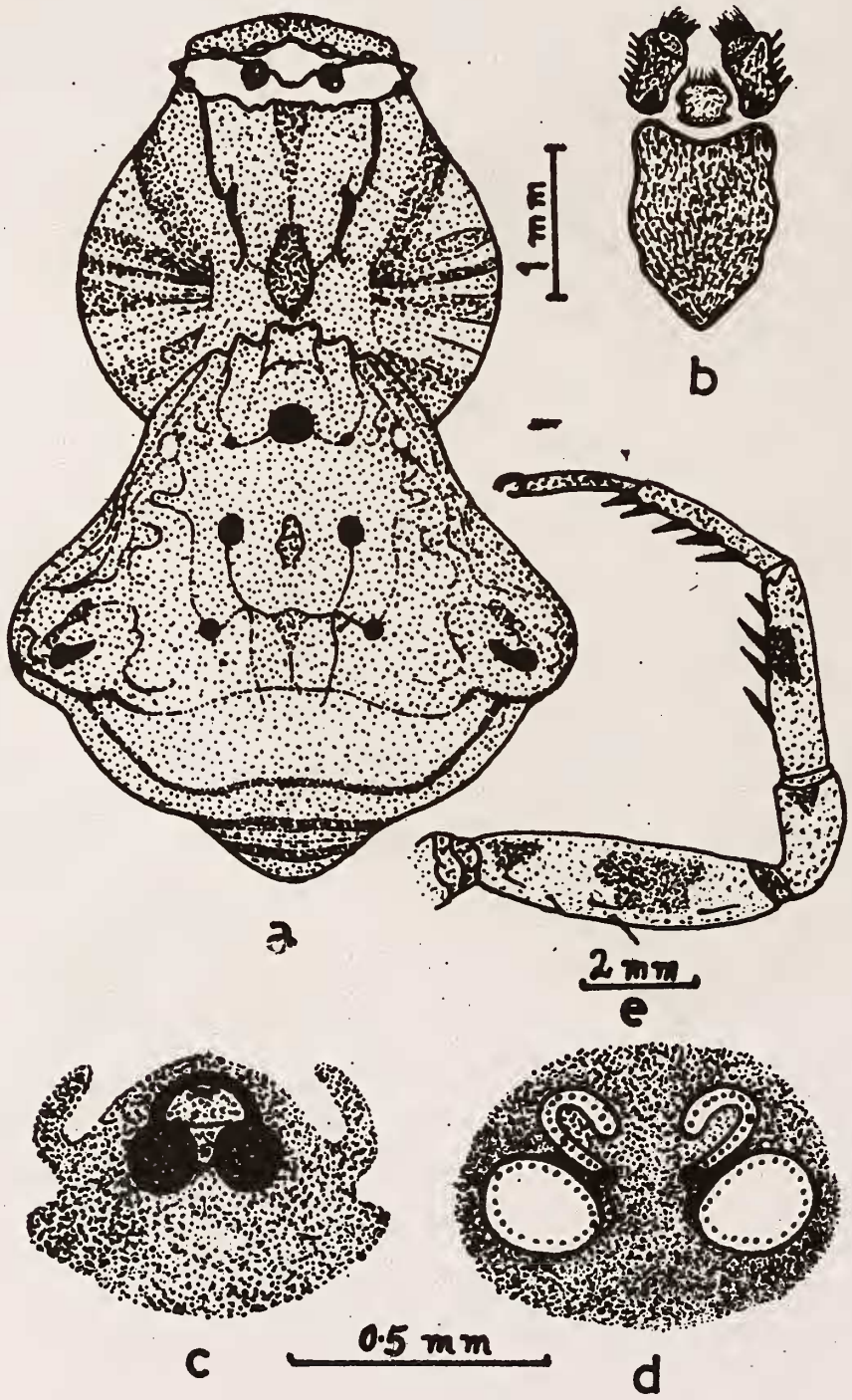

Fig. 2: *Thomisus krishnae* sp. nov. (a) Dorsal view of female (legs omitted), (b) Sternum, labium and maxillae, (c) Epigyne, (d) Internal genitalia, (e) I leg front view.

Thomisus krishnae sp. nov. (Fig. 2a-e)

Cephalothorax and legs yellowish, abdomen chalk-white. Total length 5.60 mm. Carapace 2.75 mm long, 2.70 mm wide; abdomen 3.65 mm long, 3.70 mm wide.

Cephalothorax: Pentagonal in shape, as long as wide, narrowing in front, with a transverse yellow band on ocular area. Eyes black, both rows of eyes recurved but anterior row more recurved than the posterior row. Anterior eyes more or less equal in size. Ocular quad longer than wide, wider behind than in front (Fig. 2 a). Clypeus long and subtriangular. Sternum oblong, pointed behind, chalk-white in colour, clothed with hairs. Labium and maxillae longer than wide, distal ends chalk-white in colour. Sternum, labium and maxillae as in Fig. 2 b. Chelicerae strong, yellowish in colour. Legs long and stout, I and II longer than III and IV. Metatarsi I and II provided with six pairs of stout ventral spines. Tibiae I with four prolateral and two retrolateral spines and II with one pair of ventral spines. Femora I with four dorsal spines. Legs I and II with chalk-white patches on trochanter; basally, median and apically on femur; apically on patella and tibia and on middle of tibia and metatarsus as in Fig. 2 e. Legs III and IV without any spines. Metatarsi and tarsi III and IV provided with scopulae on distal ends. Tarsal claws two. Leg formula 1/2/4/3.

Abdomen: Chalk-white, nearly rectangular, strongly overlapping the posterior region of cephalothorax in front, broadest just behind the middle. The broadest region is tuberculated laterally with a small black spot on the top of the tubercle. Dorsum of abdomen with one anterior median and two pairs of sigillae. Lateral margins and posterior end of abdomen with conspicuous muscular corrugations (Fig. 2 a). Ventral side lighter in colour, with two rows of brown dots, six in each row in between the epigastric furrow and spinnerets. Epigyne and internal genitalia as in Fig. 2 c and d.

Holotype: One female, paratype 8 females in spirit.

Type-locality: Valiveru, dist. Guntur, 15 Feb. 1986. Coll. T. S. Reddy.

Distribution: Vijayawada, dist. Krishna, 28 April 1986; Podili and Tungutur, dist. Prakasam, 27 Mar. 1986 and 10 April 1986 resp.; Nellore, dist. Nellore, 8 April 1986. Coll T. S. Reddy.

Diagnosis: This species resembles *Thomisus andamanensis* Tikader but is separated as follows: (i) Tibiae I with four prolateral and two retrolateral spines whereas *T. andamanensis* tibiae I has four pairs of ventral spines. (ii) Legs I and II with chalk-white patches but *T. andamanensis* lacks chalk-white patches. (iii) Epigyne and internal genitalia are also structurally different.

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REFERENCES

BASU, B.D. (1963): A new spider of the family Thomisidae (Araneae) from India. *Sci & Cult. 29:* 606-607

SEN, J.K. (1963): On a new species from India belonging to the genus *Thomisus* Walckenaer 1805 (Thomisidae : Arachnida). *Sci. & Cult. 29:* 610-611.

SEN, J.K. & BASU, B.D. (1963): *Thomisus mimae* a new spider (Thomisidae: Arachnida) from Calcutta. *Sci. & Cult. 29* (10): 515-516.

STOLICZKA, F. (1869) : Contribution towards the knowledge of Indian Arachnoidea. *J. Asiat. Soc. Beng. 38:* 201-251.

TIKADER, B.K. (1960): On some new species of spiders (Arachnida) of the family Thomisidae from India. *J. Bombay nat. Hist. Soc. 57 :* 173-183.

TIKADER, B.K. (1962): Studies on some Indian spiders (Araneae: Arachnida). *J. Linn. Soc. Lond.* (Zool.) *44:* 561-584.

TIKADER, B.K. (1963): Studies on interesting South Indian Crab-spiders (Family: Thomisidae). *Proc. Indian Acad. Sci., B, 58:* 249- 262.

TIKADER, B.K. (1964): Zoological results of the Indian Cho-Oyu Expedition (1958) in Nepal, Part 8, Arachnida. *Rec. Ind. Mus. 59* (3): 257-267.

TIKADER, B.K. (1965): On some new species of the family

Thomisidae from India. *Proc. Indian Acad. Sci., B, 61*: 277-289.

TIKADER, B.K. (1966) : Studies on some crab-spiders (Family: Thomisidae) from Khasi and Jaintia Hills, Assam, India. *Proc. Indian. Acad. Sci., B, 64* (1): 53-61.

TIKADER, B.K. (1971): Revision of Indian Clab-spiders (Araneae: Thomisidae). *Mem. Zool. Surv. India 15* (3): 1-90.

TIKADER, B.K. (1980): The Fauna of India, Spiders : Araneae, Vol. II, Part I. Govt. of India, New Delhi. pp. 1-247.

COPIDOGNATHUS GITAE, A NEW SPECIES OF HALACARIDAE (ACARI) FROM VISAKHAPATNAM COAST, BAY OF BENGAL[1]

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(With ten text-figures)

Copidognathus gitae, a new species of halacarids (Acari) is described here from Visakhapatnam coast (Bay of Bengal), collected among the thalli of *Caulerpa racemosa* and *Caulerpa taxifolia.* Similarities and dissimilarities with related species are discussed.

INTRODUCTION

The littoral phytal halacarids of Visakhapatnam coast are not well researched for biosystematic understanding except for the quantitative recording of the group among various algal biotopes (Sarma 1974 a, b, c; Sarma and Ganapati 1972, 1975). However, as many as eight named and six undetermined species were documented in the publications on the interstitial fauna of Visakhapatnam beach sands (Rao 1970, Rao & Ganapati 1968). The present paper is an attempt to study the biosystematics of halacarids along the coast and reports the occurrence of a new species, *Copidognathus gitae* from the phytal realm of the Visakhapatnam foreshore.

Copidognathus gitae sp. nov.*

Diagnosis: AD with long, stout, spine-like frontal elongation; telofemur I with huge pointed ventro-lateral lamella, postero-dorsal plate with 4 longitudinal costae.

Locality: Several male and female specimens were recovered from *Caulerpa racemosa* and *C. taxifolia*, collected in the littoral region of Palm Beach, Visakhapatnam coast, Bay of Bengal. Sediment deposited on the thalli consists of medium sand.

Type: The holotype (male) and paratypes are in the author's collection in the Department of Life Science, Regional College of Education, Bhubaneswar.

Description: MALE: Idiosomal length of males ranged between 256 μ and 290 μ. The various other measurements obtained from one of the male specimens are shown in Table 1.

All dorsal plates separate and are sculptured with fovea and rosette pores (Fig. 1). Anterodorsal plate (AD) bears a long, stout, spine-like frontal projection and three areolae, one located anteriorly and two posteriorly. The

TABLE 1
MEASUREMENTS OF MALE *Copidognathus gitae* SP. NOV.

	Length(μ)	Width (μ)
Idiosoma	271	158
Anterodorsal plate	92	76
Ocular plate	65	47
Posterodorsal plate	158	125
Anterior epimeral plate	73	147
Genitoanal plate	127	25
Genital opening	36	25
Gnathosoma	71	56

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